

Raw Sequence Listing Error Summary

<u>ERROR DETECTED</u>	<u>SUGGESTED CORRECTION</u>	<u>SERIAL NUMBER:</u> <u>09/806,368</u>
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFT		
1 <input type="checkbox"/> Wrapped Nucleic <input type="checkbox"/> Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 <input type="checkbox"/> Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 <input checked="" type="checkbox"/> Misaligned Amino Numbering	The numbering under each 5 th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 <input type="checkbox"/> Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 <input type="checkbox"/> Variable Length	Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 <input type="checkbox"/> PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 <input type="checkbox"/> Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading). (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped	
	Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 <input type="checkbox"/> Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 <input type="checkbox"/> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 <input type="checkbox"/> Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 <input type="checkbox"/> Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 <input type="checkbox"/> PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 <input type="checkbox"/> Misuse of n	n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.	

PCT09

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/806,368

DATE: 01/14/2002
TIME: 11:02:30

Input Set : A:\447.001.txt
Output Set: N:\CRF3\01142002\I806368.raw

*all
PR 1-6*

Does Not Comply
Corrected Diskette Needed

w--> 6 WO 00/21998 PCT/IB99/01621

delete all page nos.

w--> 8 1

13 <110> APPLICANT: Hoechst Marion Roussel
15 <120> TITLE OF INVENTION: MATURE PROTEIN HAVING ANTAGONIST ACTIVITY AGAINST BONE
16 MORPHOGENETIC PROTEIN.
18 <130> FILE REFERENCE: JH98K011 PCT SEQUENCES IN ENGLISH
20 <140> CURRENT APPLICATION NUMBER: US/09/806,368
21 <141> CURRENT FILING DATE: 2001-11-27
23 <150> PRIOR APPLICATION NUMBER: 10-288103
24 <151> PRIOR FILING DATE: 1998-10-09
26 <160> NUMBER OF SEQ ID NOS: 7
28 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

30 <210> SEQ ID NO: 1
31 <211> LENGTH: 119
32 <212> TYPE: PRT
33 <213> ORGANISM: Human
35 <220> FEATURE:
36 <221> NAME/KEY: CHAIN
37 <222> LOCATION: (1)..(119)
38 <223> OTHER INFORMATION: Mature MP52
40 <300> PUBLICATION INFORMATION:
41 <301> AUTHORS: MAKISHIMA, Fusao
42 TAKAMATSU, Hiroyuki
43 MIKI, Hideo
44 KAWAI, Shinji
45 KIMURA, Michio
46 MATSUMOTO, Tomoaki
47 KATSUURA, Mieko
48 ENOMOTO, Koichi
65 0 00/21998 PCT/IB99/01621

delete

all p. 2, also

67 2
69 SATOH, Yusuke
70 <302> TITLE: Novel protein and process for producing the same.

71 <310> PATENT DOC NO: WO 96/33215

w--> 72 <312> PUBLICATION DATE: 1996-1-0-24 *invalid format-use yyyy-mm-dd*

73 <313> RELEVANT RESIDUES: 1 TO 119

75 <400> SEQUENCE: 1

77 Pro Ser Ala Thr Arg Gln Gly Lys Arg Pro Ser Lys Asn Leu Lys Ala
E--> 78 1 5 10 15
80 Arg Cys Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp
81 20 25 30
83 Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
84 35 40 45

*misaligned
amino acid
number
(see item 3 or
Error Summary Sheet)*

RAW SEQUENCE LISTING
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Input Set : A:\447.001.txt
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86 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
 87 50 55 60
 89 Ala Val Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro
 90 65 70 75 80
 92 Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
 93 85 90 95
 E--> 95 Ile Asm Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu Asp Met Val
 96 100 105 110
 98 Val Glu Ser Cys Gly Cys Arg
 99 115
 101 <210> SEQ ID NO: 2
 102 <211> LENGTH: 114
 103 <212> TYPE: PRT
 104 <213> ORGANISM: Human
 W--> 123 WO 00/21998 PCT/IB99/01621 *delete*
 W--> 125 3
 128 <220> FEATURE:
 129 <221> NAME/KEY: CHAIN
 130 <222> LOCATION: (1)..(114)
 131 <223> OTHER INFORMATION: Mature BMP-2
 133 <300> PUBLICATION INFORMATION:
 134 <301> AUTHORS: WANG, Elizabeth A.
 135 WOZNEY, John M.
 136 ROSEN, Vicki A.
 137 <302> TITLE: Novel osteoinductive compositions.
 138 <310> PATENT DOC NO: WO 88/00205
 139 <312> PUBLICATION DATE: 1988-01-14
 140 <313> RELEVANT RESIDUES: 1 TO 114
 142 <400> SEQUENCE: 2
 144 Gln Ala Lys His Lys Gln Arg Lys Arg Leu Lys Ser Ser Cys Lys Arg
 145 1 5 10 15
 147 His Pro Leu Tyr Val Asp Phe Ser Asp Val Gly Trp Asn Asp Trp Ile
 148 20 25 30
 150 Val Ala Pro Pro Gly Tyr His Ala Phe Tyr CYs His Gly Glu Cys Pro
 151 35 40 45
 153 Phe Pro Leu Ala Asp His Leu Asn Ser Thr Asn His Ala Ile Val Gln
 E--> 154 50 move under Pro 55 55 *invalid*
 E--> 156 Thr Leu Val Asn Ser Val Asn Ser Lys Ile Pro Lvs Ala Cys Cys Val
 E--> 157 65 70 75 80
 159 Pro Thr Glu Leu Ser Ala Ile Ser Met Leu Tyr Leu Asp Glu Asn Glu
 E--> 160 85 90 95
 162 Lys Val Val Leu Lys Asn Tyr Gln Asp Met Val Val Glu Gly Cys Gly
 163 100 100 105 105 110 110
 E--> 164 Cys Arg
 181 WO 00/21998 PCT/IB99/01621
 E--> 184 4
 187 <210> SEQ ID NO: 3
 188 <211> LENGTH: 116
 189 <212> TYPE: PRT
fix nos.
delete

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/806,368

DATE: 01/14/2002
TIME: 11:02:30

Input Set : A:\447.001.txt
Output Set: N:\CRF3\01142002\I806368.raw

190 <213> ORGANISM: Human
 192 <220> FEATURE:
 193 <221> NAME/KEY: CHAIN
 194 <222> LOCATION: (1)..(116)
 195 <223> OTHER INFORMATION: Mature BMP-4
 197 <300> PUBLICATION INFORMATION:
 198 <301> AUTHORS: WOZNEY, John M.
 199 ROSEN, Vicki
 200 CELESTE, Anthony J.
 201 MITSOCK, Lisa M.
 202 WHITTERS, Matthew J.
 203 KRIZ, Ronald W.
 204 HEWICK, Rodney M.
 205 WANG, Elizabeth A.
 206 <302> TITLE: Novel regulators of bone formation molecular clones
 and activities.
 207
 208 <303> JOURNAL: Science
 209 <304> VOLUME: 242
 210 <305> ISSUE: 4885
 211 <306> PAGES: 1528-1534
 212 <307> DATE: 1988-12-16
 213 <308> DATABASE ACCESSION NO: Genbank/M22490
 214 <313> RELEVANT RESIDUES: 1 TO 116 → 213097 and response are
mandatory
whenever
213087 has
a response.
 W--> 216 ← 300> PUBLICATION INFORMATION. → ignore this
 217 Ser Pro Lys His His Ser Gln Arg Ala Arg Lys Lys Asn Lys Asn Cys
 218 1 5 10 15
 E--> 220 Arg Arg His Ser Leu Tyr Val Asp Phe Ser Asp Val Gly Trp Asn Asp
 221 20 25 30
 E--> 221 Trp Ile Val Ala Pro Pro Gly Tyr Gln Ala Phe Tyr Cys His Gly Asp
 223 35 40 45
 E--> 224 239 WO 00/21998 → 5 → PCT/IB99/01621 → delete
 E--> 241 Cys Pro Phe Pro Leu Ala Asp His Leu Asn Ser Thr Asn His Ala Ile
 244 50 55 60 what is this?
 E--> 245 Val Gln Thr Leu Val Asn Ser Val Asn Ser Ser 71 e Pro Lys Ala Cys
 247 65 70 75 80
 E--> 248 Cys Val Pro Thr Glu Leu Ser Ala Ile Ser Met Leu Tyr Leu Asp Glu
 250 85 90 M 95
 E--> 251 Tyr Asp Lys Val Val Leu Lys Asn Tyr Gln Glu Met Val Val Glu Gly
 253 100 105 110
 E--> 254 Cys Gly Cys Arg
 256 115
 E--> 257 259 <210> SEQ ID NO: 4
 261 <211> LENGTH: 139
 262 <212> TYPE: PRT
 263 <213> ORGANISM: Human
 265 <220> FEATURE:
 267 <221> NAME/KEY: CHAIN
 268 <222> LOCATION: (1)..(139)

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/806,368

DATE: 01/14/2002
TIME: 11:02:30

Input Set : A:\447.001.txt
Output Set: N:\CRF3\01142002\I806368.raw

269 <223> OTHER INFORMATION: Mature BMP-7
271 <300> PUBLICATION INFORMATION:
273 <301> AUTHORS: OZKAYNAK, Engin
274 RUEGER, David C.
275 DRIER, Eric A.
276 CORBETT, Clare
277 RIDGE, Richard J.
278 SAMPATH, Kuber T.
279 OPPERMANN, Hermann
280 <302> TITLE: OP-1 cDNA encodes an osteogenic protein in the TGF-beta family.
281 WO 00/21998 PCT/IB99/01621
294 6
296

300 <303> JOURNAL: EMBO J.

301 <304> VOLUME: 9

302 <305> ISSUE: 7

303 <306> PAGES: 2085-2093

304 <307> DATE: 1990

305 <308> DATABASE ACCESSION NO: EM13L data library/X51801

306 <313> RELEVANT RESIDUES: 1 TO 139

W--> 308 <300> PUBLICATION INFORMATION: *ignore*

310 Ser Thr Gly Ser Lys Gln Arg Ser Gln Asn Arg Ser Lys Thr Pro Lys
311 1 5 10 invalid 15

E--> 313 Asn Gln Glu Ala Leu Arg Met Ala Asn Val Ala G7-u Asn Ser Ser Ser
314 20 25 30

316 Asp Gln Arg Gln Ala Cys Lys Lys His Glu Leu Tyr Val Ser Phe Arg
317 35 40 45

319 Asp Leu Gly Trp Gln Asp Trp Ile Ile Ala Pro Glu Gly Tyr Ala Ala
320 50 55 60

322 Tyr Tyr Cys Glu Gly Glu Cys Ala Phe Pro Leu Asn Ser Tyr Met Asn
323 65 70 FIX NOS. 75 80

E--> 323 Ala Thr Asn His Ala Ile Val Gln Thr Leu Val His Phe Ile Asn Pro
325 85 90 95

E--> 326 Glu Thr Val Pro Lys Pro Cys Cys Ala Pro Thr Gln Leu Asn Ala Ile
328 100 105 110

E--> 329 Ser Val Leu Tyr Phe Asp Asp Ser Ser Asn Val Ile Leu Lys Lys Tyr
331 115 120 125

E--> 332 Arg Asn Met Val Val Arg Ala Cys Gly Cys His

E--> 334 130 135

E--> 335 WO 00/21998 PCT/IB99/01621

E--> 352 7

355 <210> SEQ ID NO: 5
357 <211> LENGTH: 119
358 <212> TYPE: PRT
359 <213> ORGANISM: Human
361 <220> FEATURE:
363 <221> NAME/KEY: CHAIN
364 <222> LOCATION: (1)..(119)
365 <223> OTHER INFORMATION: Mature MP52 protein. Note : 30th, 71st, 74th and

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/806,368

DATE: 01/14/2002
TIME: 11:02:30

Input Set : A:\447.001.txt
Output Set: N:\CRF3\01142002\I806368.raw

366 111th Met are modified to met sulfoxide.
 368 <400> SEQUENCE: 5 *invalid*
 E--> 370 Pro Ser Ala Thr Arg Gln Gly Lys Arg Pro Ser Lys Asn Leu Lys Ala
 371 1 5 10 15
 373 Arg Cys Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp
 374 20 25 30
 376 Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
 377 35 40 45
 379 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
 380 50 55 60
 382 Ala Val Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro
 383 65 70 75 80
 385 Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
 386 85 90 95
 388 Ile Asn Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu Asp Met Val
 389 100 105 110
 391 Val Glu Ser Cys Gly Cys Arg
 392 115
 407 WO 00/21998

PCT/IB99/01621

delete

E--> 409 8

411 <210> SEQ ID NO: 6
 412 <211> LENGTH: 119
 413 <212> TYPE: PRT
 414 <213> ORGANISM: Human
 416 <220> FEATURE:
 417 <221> NAME/KEY: CHAIN
 418 <222> LOCATION: (1)..(119)
 419 <223> OTHER INFORMATION: Mature MP52 protein. Note : 30th and/or 71st
 420 and/or 74th and/or 111th met are modified to
 421 s-carboxymethyl Met.
 423 <400> SEQUENCE: 6
 425 Pro Ser Ala Thr Arg Gln Gly Lys Arg Pro Ser Lys Asn Leu Lys Ala
 426 1 5 10 15
 428 Arg Cys Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp
 429 20 25 30
 431 Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
 432 35 40 45
 434 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
 435 50 55 60
 437 Ala Val Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro
 438 65 70 75 80
 440 Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
 441 85 90 95
 443 Ile Asp Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu Asp Met Val
 444 100 105 110
 446 Val Glu Ser Cys Gly Cys Arg
 447 115
 464 WO 00/21998

PCT/IB99/01621

delete

E--> 466

9

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/806,368

DATE: 01/14/2002
TIME: 11:02:30

Input Set : A:\447.001.txt
Output Set: N:\CRF3\01142002\I806368.raw

469 <210> SEQ ID NO: 7
470 <211> LENGTH: 119
471 <212> TYPE: PRT
472 <213> ORGANISM: Human
474 <220> FEATURE:
475 <221> NAME/KEY: CHAIN
476 <222> LOCATION: (1)..(119)
477 <223> OTHER INFORMATION: Mature MP52 protein. Note :32nd and 35th Trp are
modified to allylsulphenyl Trp.
478
480 <400> SEQUENCE: 7

E--> 482 Pro Ser Ala Thr Arg Gin Gly Lys Arg Pro Ser Lys Asn Leu Lys Ala
483 1 5 10 15
485 Arg Cys Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp
486 20 25 30
488 Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
489 35 40 45
491 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
492 50 invalid 55 60
E--> 494 Ala Val Ile Gin Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro
495 65 70 75 80
497 Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
498 85 90 95
E--> 500 Ile Asp Ser Ala Asn Asn Val Val Tyr Lys Gin Tyr Glu Asp Met Val
501 100 105 110
503 Val Glu Ser Cys Gly Cys Arg
504 115

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/806,368

DATE: 01/14/2002
TIME: 11:02:31

Input Set : A:\447.001.txt
Output Set: N:\CRF3\01142002\I806368.raw

L:6 M:259 W: Allowed number of lines exceeded, (1) GENERAL INFORMATION:
L:8 M:259 W: Allowed number of lines exceeded, (1) GENERAL INFORMATION:
L:20 M:270 C: Current Application Number differs, Replaced Application Number
L:21 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:72 M:256 W: Invalid Numeric Header Field, Wrong PUBLICATION DATE:YYYY-MM-DD
L:78 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1
L:95 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:123 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:125 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:154 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2
L:156 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
M:332 Repeated in SeqNo=2
L:216 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:3
L:220 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3
M:332 Repeated in SeqNo=3
L:247 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:247 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:308 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:4
L:313 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:313 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:323 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:4
M:332 Repeated in SeqNo=4
L:370 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:409 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:5
L:466 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:6
L:482 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:494 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:500 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1